

**Scope of Work  
Bristol Bay Watershed Assessment  
USGS IA Technical Support**

**Purpose:**

The purpose of the Interagency Agreement is to request technical support from the United States Geological Survey (USGS) for the Bristol Bay Watershed Assessment in southwestern Alaska.

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<b>USGS Contacts:</b>	Robert Seal Research Geologist US Geological Survey 954 National Center 12201 Sunrise Valley Drive Reston, VA 20192 703-648-6290 rseal@usgs.gov	Shirlie McManus-Hunt Administrative Officer US Geological Survey 954 National Center 12201 Sunrise Valley Drive Reston, VA 20192 703-648-5825 smcmanus@usgs.gov
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<b>Authorizing Official:</b>	Daniel Hayba Eastern Mineral and Environmental Resources Science Center Director US Geological Survey 954 National Center 12201 Sunrise Valley Drive Reston, VA 20192 703-648-6327 dhayba@usgs.gov
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**Background:**

EPA will conduct a scientific assessment of the Bristol Bay watershed to better understand how future large-scale development projects, particularly mining, may affect water quality and Bristol Bay's salmon fishery, an extraordinary salmon resource for the United States. EPA initiated this assessment in response to concerns from federally-recognized tribes and others who petitioned the agency in 2010 to assess any potential risks to the watershed. Most of the Bristol Bay watershed is wildlife refuge or park where large development is restricted. EPA's efforts will focus on those areas that are not protected. The assessment will focus primarily on the Nushagak and Kvichak watersheds.

The USGS is currently developing a mineral-environmental assessment methodology to identify environmental challenges associated with future mining of metallic mineral deposits on a deposit type

by deposit type basis. The aim of this project is to identify the deposit-specific pathways by which a mineral deposit may impact the surrounding environment – aquatic or terrestrial ecosystems or humans – via surface water, groundwater, sediment, soil, or fugitive dust. The goal of this work is to provide scientifically sound insights to aid the decision-making process regarding future mining for all stakeholders – land managers, regulators, mining industry, non-governmental organizations, and concerned citizens. Robert Seal is the project chief for this USGS effort. The Bristol Bay watershed assessment provides a unique opportunity to better understand the nature and types of data that are best suited to inform the decision-making process about future mining.

**Tasks:**

1. Provide technical assistance to EPA in support of the Bristol Bay watershed assessment. This shall include review of documents submitted to EPA, and written contributions to reports being prepared by EPA as part of the watershed assessment. Critical areas of support are development of a mining scenario for the watershed, compilation of environmental-geochemical data in support of this scenario development, and environmental geochemistry associated with metal mining in general.
2. Attend conference calls, technical work-group meetings, and site visits to support EPA in the Bristol Bay watershed assessment.

**Deliverables:**

The USGS shall submit electronic contributions to reports being prepared by EPA as part of the Bristol Bay watershed assessment.

**Budget:**

The U.S. Environmental Protection Agency through an Interagency Agreement with the U.S. Geological Survey will provide USGS with \$15,000 for travel expenses related to participation in the Bristol Bay Watershed Assessment.

Item	EPA Share	USGS In-Kind	Total
Staff salary (0.3 FTE)		\$58,100	\$58,100
Travel expenses	\$15,000		\$15,000
Total	\$15,000	\$58,100	\$73,100

**Timeline:** The IA is expected to be in effect until August 2013.